ABSTRACT

The invention concerns a method for digital simulation of a die-stamping process comprising the following steps: recording at least one metamodel consisting of a permanent collection of the digital representations of elementary components of die-stamping tools, each of said elementary components being defined in the form of finished elements, and comprising digital static attributes; recording a digital model for deforming a blank used in the process to be simulated; selecting a subassembly of said permanent collection, by temporarily recording said elementary components representing a particular die-stamping tool corresponding to the simulation concerned, said subassembly constituting a specific collection in the form of digitized finished elements of the specific collection, parameterizing said digitized finished elements of the specific collection, and the corresponding attributes based on the characteristics of the process to be simulated; recording the digital data representing the relative movements of the components of said specific collection, based on operating cycles of the die-stamping process to be simulated; recalculating the digital models for deforming the blank based on the recorded digitized data in the parameterized specific collection, of the digital model of the blank, and of the specific displacements; generating a digital or visual representation of deformations of the blank by applying said recalculated digital model.